## **LBNL Laser Operations Audit Form**

Rev Jan 2013	AHD#

### **Administration Information**

AHD Title Auditor	Date	PI				Division	
Work Leader				Building		Room	
Present during audit				<del>-</del>			
<b>Documentation</b>							
All Lasers in use (active) listed	in AHD (circle)	Yes	No				
New laser(s), list with specification	tions on last page	Yes	No				
Inactive/ In storage lasers		Yes	No		Other		
Class 3B or Class 4 lasers prese	ent in non-commercia	al systems o	perated a	s a Class 1 s	ystem product	Yes	No
If Yes, is there documentation of	of the system evaluat	ion Yes	No				
<b>Laser Information</b>							
Highest Class Laser 3B 4							
Alignment Lasers in use: Ye	es No Type:	Hel	Ve	Diode	IR	Class:	

Environment	YES	NO	NA	<b>NOTE</b>
Main entrance Door Posted				
Posting accurate (wavelength)				
Contact information				
Readily visible				
Ancillary doors				
Entry through curtain				
Windows and doors coverings				

### Illuminated sign

Functional:	Yes	No	Visibility:	Bright	Average	Dim	
Interlocked to			•				

#### **Access control**

Administrative	means: Card Key	Lock	Keypad-lock	Other	
Explain	•				
Interlocked:					
Type	Non Defeatable	De	featable		

Type: Non Defeatable	Defeatable			
Outside bypass available (circle)	Card key Key pad	Key	Other	
Emergency stop present: Inside	Outside	•		

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Environment cont.,,	YES	NO	NA	NOTE
Interlock functioning				
Last interlock check date:				
Written Interlock check procedure				
Interlock to shutters				
Interlock to power supply				
Housekeeping				
On optical table				
In laser use area				
<u>Under tables</u>				
Space at Beamline (ALS only)				
Room Light Levels Normal Low Dark Varies				
Unattended Operation				
<u>Explain</u>				
Beam Path				
Beam path (circle) Totally open Completely enclosed Combination				
Lasers & optics secured to table				
Beam properly contained				
Beam blocks Secured Loose				
Perimeter guards				
Table top enclosures				
Beam Tubes				
Other means (describe)				
Use of remote viewing cameras				
Beam in line with workstations				
Reflections contained, specular as well as diffuse				
Beams blocked from directly exiting open door or window				
Beams required to leave table?				
Crosses walk way (controls in place)				
Describe				
Passes into adjacent room/chamber				
Describe means and controls				
Non-essential materials out of beam path				
Upward directed beams				
Blocked				
Vertical beam hazard labels used				
Collecting optics used in room				

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Fiber optics in use: Bare Jacketed (Plastic, Armor) Totally Enclosed System  Fiber ends labeled  Container for sharps, labeled properly	 NO	NA	NOTE
Container for sharps, labeled properly			
Fiber conduit labeled			
Personnel Factors			
Laser eye exam by all laser personnel			
Laser safety training current			
OJT process documented			
Has staff signed off on AHD? (only applies to active AHDs)			
aser Protective Eyewear			
Correct eyewear available (OD & wavelength)			
Proper storage, where outside use area inside use area			
Sufficient quantity on hand			
General Condition of eyewear Very Good Good Fair Damaged			
OD & Wavelength readable			
Skin protection Process Interaction			
Are gases/vapors/fumes controlled?			
Using Oxygen Deficiency gases			
Clectrical items Optical tables grounded?			
eismic concerns  Table(s), work area secured			
Table(s), work area secured	 1		-